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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/05/2005

Reiner Hannen

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EXAMINER

ADAMS, GREGORY W

ART UNIT

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DELIVERY MODE

06/02/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/552,431	Applicant(s) HANNEN ET AL.	
	Examiner GREGORY W. ADAMS	Art Unit 3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 24 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Low-friction foil as added on April 12, 2008 was not in the original disclosure filed Oct. 5, 2005 or its priority documents as best understand without a foreign translation.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14-20, 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim 14 element “means for shifting the aligning element horizontally” (claim 14, line 9, claim 19, line 9) is a means (or step) plus function limitation that invokes 35 U.S.C. 112, sixth paragraph. However, the written description fails to clearly link or associate the disclosed structure, material, or acts to the claimed function such that one of ordinary skill in the art would recognize what structure, material, or acts perform the

Art Unit: 3652

claimed function. The full disclosure implicitly links supporting construction 10 and roller arrangements 9 shifting aligning devices 5 but nothing is clearly linked with pushing a stack past an edge to align an outwardly extending sheet so as to not bend a sheet.

Applicant is required to: Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or State on the record where the corresponding structure, material, or acts are set forth in the written description of the specification that perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

The claim limitation “means for shifting the aligning element horizontally toward the stack and substrate” (claim 14, line 9) uses the phrase “means for” or “step for”, but it is modified by some structure, material, or acts recited in the claim. It is unclear whether the recited structure, material, or acts are sufficient for performing the claimed function which would preclude application of 35 U.S.C. 112, sixth paragraph, because the following limitation “for engaging the projecting portion of the stack and pushing...sheets” (claim 14, lines 10-13). It is unclear if the second “for...” statement is intended to modify the “means-plus-function” limitation or is intended to mean a new “means-plus-function” statement invoking 35 USC 112, sixth paragraph itself.

If applicant wishes to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant is required to amend the claim so that the phrase “means for” or “step for” is clearly **not** modified by sufficient structure, material, or acts for performing the claimed function.

If applicant does **not** wish to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant is required to amend the claim so that it will clearly not be a means (or step) plus function limitation (e.g., deleting the phrase "means for" or "step for").

Claim 19 recites the limitation "the projecting sheets" in line 11. There is insufficient antecedent basis for this limitation in the claim. "Projecting portion" is assumed. See also claim 26, line 9.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Applicant has invoked 35 USC 112, sixth paragraph. Thus, the following table
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represents the examiners interpretation of means-plus-function relative to Applicants full disclosure. In response Applicant is required to: Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or State on the record which corresponding structure, material, or acts are by specification page, line number and reference character perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.	
Claim 14, line 9: means for shifting the aligning element horizontally	supporting construction 10, roller arrangements 9 (page 9, line 9)
Claim 19, line 9: means for shifting the aligning element horizontally towards the stack and fitting the member under the projecting portion to support same while and pushing the projecting sheets inwards on the substrate to a position lying on or inwards of the outer edge without downwardly bending or deflecting the sheets.	supporting construction 10, roller arrangements 9 (page 9, line 9)

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lucas (US 4,154,330) (previously cited) in view of Kaneda et al. (US 6,073,926) (previously cited). Lucas discloses

Art Unit: 3652

- an aligning element 23, 24, 36, 37 shiftable horizontally toward (FIG. 8B) and away (FIG. 8A) from one edge of a substrate (e.g. “tray”) and having a face directed toward sheets 2, 2a;
- a slip-preventing layer 36 on a face 23, 24, 37; and
- means (i.e. supporting construction 1, 6-8, roller arrangements 18; C5/L47-50) for shifting an element 23 horizontally toward a stack 30 and substrate.

Under the doctrine of 35 USC 112, sixth paragraph, Lucas discloses means for shifting an element horizontally toward a stack comprising supporting structure 1, 6-8 and roller arrangements 17, 18 for both left and right-hand aligning devices 24, 36. Lucas’ apparatus is designed “to straighten up the load 30 as located on the pallet” by pushing inward on a stack. C5/L65; C6/L16.

Kaneda et al. discloses an apparatus that pushes sheets horizontally into alignment with lower or upper sheets (FIG. 8A-8B), an apparatus comprising:

- an aligning element 41 shiftable horizontally toward (FIG. 8B) and away (FIG. 8A) from one edge of a substrate 2, 4 and having a face directed toward sheets 42a, 42b;
- a slip-preventing layer 43a, 43b on a face; and
- means (C5/L46-50) for shifting an element 41 horizontally toward a stack and substrate.

Kaneda teaches aligning sheets in a stack prior to stapling, i.e. a downstream process.

Lucas teaches aligning stacked cardboard sheets of cardboard sheets for shrink wrapping, i.e. downstream process. Moreover, Kaneda et al. teaches pushing flexibly

Art Unit: 3652

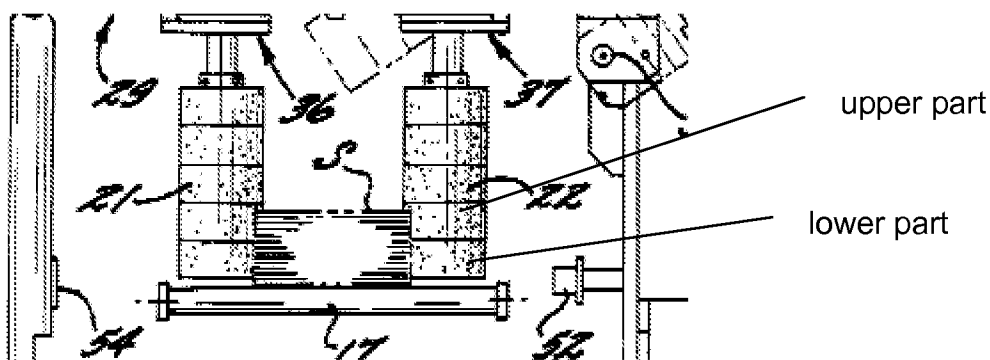
sheets horizontally to align any projecting sheets with other sheets in a stack. This is an identical solution to that in Lucas. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Lucas to include Kaneda's slip-preventing layer because a sponge, i.e. an elastic member, offers a smaller damper effect. C7/L1 Moreover, Lucas and Kaneda combine well known elements to achieve a predictable result.

Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lucas in view of Kaneda et al. and further in view of Newsome et al. (US 6,231,299) (previously cited).

With respect to claims 15-16, Kaneda et al. disclose an elastic sponge material, some type of elastomer. Newsome et al. disclose stabilizing elements that shift horizontally comprising soft foam rubber layer 21, 22, one version of elastomer (www.dictionary.com). Newsome et al. teaches that this "construction permits the outer periphery to be readily deflectable, as is seen in FIG. 4, so as to firmly engage the stacks of documents passing through the gate without damaging the stacks. Also, the resilient rolls act to laterally align the documents in the stacks as they pass through the gate. Each roll typically has a diameter of about 4 inches and a height of about 10 inches." C4/L6. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Lucas to include a layer of elastomer, as per the teachings of Newsome et al., to prevent damage to stacks.

Art Unit: 3652

With respect to claim 17, Newsome et al. disclose an element having upper and lower parts, i.e. a series of rolls in stacked alignment. See figure below. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Lucas to include upper and lower parts, as per the teachings of Newsome et al., to prevent damage during stack alignment.



Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lucas in view of Kaneda et al. and Newsome et al. and further in view of Dietz (US 233,483) (previously cited). Dietz discloses two parts joined at a nonplanar interface a, a' so as to form a close fitting lock-joint. P1/L20-26. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Lucas to include joining two parts in a nonplanar interface, as per the teachings of Dietz, to lock two adjacent parts. Moreover, the joining of upper and lower parts has no effect on the performance such that any method of joining has no effect on aligning. In other words, a non-planar surface has many equivalents including sawtooth,

dove-tail, tung-and-groove, none of which alter the fact that the two pieces are aligned vertically at the face forming a planar surface. Using any of the connecting functional equivalents has no effect where the end result is a planar surface and are well known and obvious design choices.

Claims 19-20 & 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lucas in view of Kaneda et al. and Greller (US 4,400,124) (previously cited).

Lucas discloses

- an aligning element 23, 24, 36, 37 shiftable horizontally toward (FIG. 8B) and away (FIG. 8A) from one edge of a substrate (e.g. "tray") and having a face directed toward sheets 2, 2a; and
- means (i.e. supporting construction 1, 6-8, roller arrangements 18; C5/L47-50) for shifting an element 23 horizontally toward a stack 30 and substrate.

Under the doctrine of 35 USC 112, sixth paragraph, Lucas discloses means for shifting an element horizontally toward a stack comprising supporting structure 1, 6-8 and roller arrangements 17, 18 for both left and right-hand aligning devices 24, 36. Lucas' apparatus is designed "to straighten up the load 30 as located on the pallet" by pushing inward on a stack. C5/L65; C6/L16.

Kaneda et al. discloses an apparatus that pushes sheets horizontally into alignment with lower or upper sheet (FIG. 8A-8B), an apparatus comprising:

- an aligning element 41 shiftable horizontally toward (FIG. 8B) and away (FIG. 8A) from one edge of a substrate 2, 4 and having a face directed toward sheets 42a, 42b;

Art Unit: 3652

- means (C5/L46-50) for shifting an element 41 horizontally toward a stack and substrate.

Kaneda teaches aligning sheets in a stack prior to stapling, i.e. a downstream process.

Lucas teaches aligning stacked cardboard sheets of cardboard sheets for shrink wrapping, i.e. downstream process. Moreover, Kaneda et al. teaches pushing flexibly sheets horizontally to align any projecting sheets with other sheets in a stack. This is an identical solution to that in Lucas. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Lucas to include Kaneda's slip-preventing layer because a sponge, i.e. an elastic member, offers a smaller damper effect. C7/L1. Moreover, Lucas and Kaneda combine well known elements to achieve a predictable result.

Greller et al. discloses-

- a member 41 on an element 27 engageable under a stack;
- means (C4/L6-25) for shifting an element 27 horizontally toward a stack and fitting a member under a projecting sheets (C3/L56-59) to support same while and pushing projecting sheets inward on a substrate to a position lying on or inward of an outer edge without vertically bending or deflecting the sheets; and
- wherein an element 41 has a horizontal surface portion generally level with an upper surface of a substrate 1.

As Applicant has invoked 35 USC 112, sixth paragraph Greller discloses supporting construction 12. It is noted that while Greller et al. does not explicitly disclose aligning a

Art Unit: 3652

bottom magazine adjacent a substrate 1 a skilled artisan would understand that Greller's apparatus would align any article in stack S whether the bottom most or top most because Greller's clamp 27, 41 extends above and below a stack. Horizontal portion 41 is level with substrate 1 and subsequently applies a force against a stack in combination with clamp 27 to the extent that sheets Z are bowed upwardly as shown in FIG. 1. Any projecting magazines, including a bottom most, would be pushed in during clamping. Greller teaches manipulating stacks without interference by a carrying plate without smearing of printing on articles within a stack. C1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Lucas to include Greller's means for shifting an element towards and away and horizontal surface portion to manipulate stacks without smearing.

Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneda et al. in view of Pizzi (US 6,386,824) (previously cited) and further in view of Newsome et al.

With respect to claim 21, Kaneda et al. disclose a method of aligning a stack of flexible sheets on a substrate having an outer edge, some of the sheets projecting laterally past one of the edges, the method comprising the step of:

- pressing a nonslip surface 43 of a stabilizing element 42 against laterally projecting sheets 2a so as to push laterally projecting sheets in at least to an outer edge; and thereafter

- pressing a stabilizing element against other sheets in a stack to align them on a substrate.

Kaneda et al. disclose sponge material or some type of elastomer and does not disclose a nonslip surface. Newsome et al. disclose stabilizing elements that shift horizontally comprising nonslip soft foam rubber layer^{21, 22}. Newsome et al. teaches that this “construction permits the outer periphery to be readily deflectable, as is seen in FIG. 4, so as to firmly engage the stacks of documents passing through the gate without damaging the stacks. Also, the resilient rolls act to laterally align the documents in the stacks as they pass through the gate. Each roll typically has a diameter of about 4 inches and a height of about 10 inches.” C4/L6. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Kaneda et al. to include a layer of elastomer, as per the teachings of Newsome et al., to prevent damage to stacks.

Pizzi discloses means (C5/L61-67) for shifting an element horizontally toward a stack while pushing projecting sheets (top and bottom) inward on a substrate 2 to a position lying on or inward of an outer edge without bending or deflecting sheets and then pressing a stabilizing element 46 against other sheets in a stack to align them on a substrate. Pizzi teaches that aligning using side stabilizer elements keeps all edge faces of each stack layer from damage, i.e. set back from a pallet edge. C1. Moreover, a skilled artisan would understand that Kaneda's apparatus extends above and below a stack allowing any projecting sheet in a stack to be shifted relative to each other and a substrate. Therefore, it would have been obvious to one having ordinary skill in the art

Art Unit: 3652

at the time the invention was made to modify the method of Kaneda et al. to include pushing projecting sheets in alignment and then a stabilizing element in alignment with a substrate, as per the teachings of Pizzi, to keep stack edges safely within the outer perimeter of a substrate, e.g. pallet, perimeter, for purposes of damage prevention.

With respect to claim 22, Kaneda et al. disclose a step of aligning a substrate relative to a stabilizing element (FIG. 8A) before pressing a stabilizing element against laterally projecting sheets.

Claims 23, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneda et al. in view of Pizzi and Newsome and further in view of Schmitt (US 3,902,214). Schmitt discloses reducing friction using a coating of oil lubricant. Schmitt teaches application of a lubricant such as a film of oil to quiet movement of articles. C2/L10-20. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Kaneda et al. to include reducing friction by applying a coating of oil lubricant.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneda et al. in view of Pizzi, Newsome and Schmitt and further in view of Buttner (US 3,980,312). Schmitt discloses reducing friction using a coating of oil lubricant. Schmitt teaches application of a lubricant such as a film of oil to quiet movement of articles. C2/L10-20. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Kaneda et al. to include reducing friction by applying a coating of oil lubricant. Buttner discloses foil is a suitable replacement for oil in low-friction applications because permanent coatings are more

difficult to install requiring professional installation whereas foil or oil are easier and provide the same anti-friction performance. C1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Kaneda to substitute Schmitt's oil with Buttner's foil for a less permanent but still installable by a user anti-friction surface. Finally, since both Schmitt and Buttner achieve the predictable result of reducing friction between two surfaces a skilled artisan would have been motivated to combine both with Kaneda's pushing and straightening apparatus on pallet to achieve a predictable result.

Response to Arguments

Applicant's arguments filed May 18, 2009 have been fully considered but they are not persuasive. The examiner does not agree with Applicants interpretations. Lucas and/or Kaneda disclose moving elements towards and away from a stack of bendable sheets. Applicant argues that the claims have been amended to recite that entire stack is pushed back in to be inward of the substrate edge (Page 6, line 5). Applicants full disclosure implicitly requires supporting construction 10, roller arrangements 9 (page 9, line 9) as the means. Lucas discloses supporting construction 1, 6-8 and roller arrangements 18 (C5/L47-50). Under invocation of 35 USC 112, sixth paragraph Applicants arguments fail to meet the burden established under 35 USC 112, sixth paragraph because after the examiner has met the prima facie test Applicant can either amend the claims to remove the means-plus-function limitation or explicitly note where in the specification by page, line and reference character that structure when Applicant

considers to be the correct means. Moreover, the inclusion of passages from the specification describing the operation but without discussion of means is insufficient.

The examiner does agree with Applicants interpretation of Kaneda. Kaneda discloses that member 40 which includes elements 42a-b, 43a-b "is provided in the middle guide hole 28 for pushing the discharge tip end of the sheet 2 to match the sheet 2 with the reference position L2." C5/L26. Kaneda also teaches stopping sheets but that structure of Kaneda was not cited in the rejection above.

Lucas was not cited as disclosing a stabilizing element. Lucas discloses an aligning element 23, 36, 37. Applicant concedes that Lucas discloses the elements of the claims arguing that the operation on sheets is different. Page 9, line 8. Applicant is respectfully reminded that the material or article worked upon by the apparatus does not limit apparatus claims. See MPEP 2115. Regardless, Kaneda discloses aligning sheets 2. Moreover, it is noted that "flexible" is a relative term such that with enough (or little) force any sheet can be pushed without bending. For example, a skilled artisan would understand that more force could be used for steel sheets than paper sheets, yet steel are well know to be bent during forming of products.

Newsome was not cited in the rejection of claims 19 & 26. Thus, those arguments are moot. Greller clearly discloses in FIG. 1 vertical, planar surfaces 27, 27' moving horizontally to press/push a stack vertical edge, the respective edges of each magazine being aligned vertically.

Lucas full disclosure does not disclose bent sheets when pushed and Kaneda does not disclose any such effects as well. Thus, at least both Lucas and Kaneda disclose pushing without bending as defined by Applicant.

Applicants main arguments are based on the fact that handling flexible sheets produces a different apparatus. As noted in the rejection above the claims and limitations are disclosed in the cited prior art. To a skilled artisan presented with the cited prior art a myriad of materials could be used, centered, aligned, pushed etc., because varying degrees of horizontal movement can be controlled and established such that while viewing the operation thereof any material from the most flexible to the least can be aligned. Finally, Applicants definition of a “without bending” is a to push on flexible sheets.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GREGORY W. ADAMS whose telephone number is (571)272-8101. The examiner can normally be reached on M-Th, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on (571) 272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gregory W Adams/
Primary Examiner, Art Unit 3652